ALTERING MIDAS SCENARIOS

Purpose

This Air Quality Group procedure describes the process for altering Meteorological Information and Dispersion Assessment System (MIDAS) scenarios to reflect continually changing chemical and radiological inventories at Los Alamos National Laboratory (LANL). MIDAS is a tool used by the ESH-17 Meteorology Project to assess the consequences of an accidental release of hazardous chemicals or radiological materials to the atmosphere.

Scope

This procedure applies to ESH-17 Meteorology Project staff personnel who perform alterations to the MIDAS model.

In this procedure

This procedure addresses the following major topics:

Signatures

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Approved by: Terry Morgan, QA Officer	Date: 6/11/98
Approved by: Doug Stavert, ESH-17 Group Leader	Date: 6/11/98

General information about this procedure

Attachments

This procedure has no attachments.

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	6/16/98	New document.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- ESH-17 personnel assigned to maintaining the MIDAS model

Training method

The training method for this procedure is “self-study” (reading) and is documented in accordance with the procedure for training (ESH-17-024).

Prerequisites

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- Knowledge of and experience with UNIX software
- Training in the use of MIDAS

General information, continued

Definitions specific to this procedure

cass: HP 9000 715 workstation, TA-59, Bldg. 1, Rm. B14, Meteorology/Emergency Management Alternate Server

MIDAS: Meteorological Information and Dispersion Assessment System. A tool to assess the consequences of an accidental release of hazardous chemical or radiological materials to the atmosphere.

sibyl: HP 9000 735 workstation TA-59, Bldg. 1, Rm. 181, Meteorology/Emergency Management Primary Server.

References

The following documents are referenced in this procedure:

- ESH-17-024, "Personnel Training"
- PLG 1996: PLG, "Technical Manual: MIDAS Documentation Volume 2 (part 1 of 2)," 1996.
- PLG 1993: PLG, "Chemical MIDAS User's Manual," June 1993.
- Holt 1998: H. D. Holt, "How to Transfer Scenarios Between HPs," Los Alamos National Laboratory Memorandum ESH-17: 98-informal, May 19, 1998

Note

Actions specified within this procedure, unless preceded with "should" or "may," are to be considered mandatory guidance (i.e., "shall").

Altering MIDAS scenarios

Overview

MIDAS scenarios must be changed continually to ensure that they reflect current chemical and radiological inventories. Scenarios may also be changed if errors are discovered or for other reasons as determined by Emergency Management and Response (EM&R) personnel. Instructions regarding required changes are received from EM&R personnel.

Steps to alter a MIDAS scenario

To alter a MIDAS scenario, perform the following steps:

Step	Action
1	Obtain instructions to make a change to a MIDAS scenario from EM&R personnel, or confer with EM&R personnel if it is believed that a change is necessary.
2	Using scenario_transfer.pl (Holt 1998), determine if any users are currently running MIDAS on *cass* or *sibyl*. If no user is running MIDAS, go to Step 4. If a user is running MIDAS on *cass* or *sibyl*, continue with Step 3.
3	Contact the user running MIDAS and have them notify you when they are finished with their MIDAS session, or ask them to log out of their MIDAS session. Go to Step 4.
4	Perform changes within the appropriate MIDAS editor on *cass*. TDEDIT is used for most changes in C-MIDAS, ISOEDT is used for most changes in R-MIDAS. See the PLG 1996 and PLG 1993 for details.
5	Execute modified scenario in MIDAS. Check the release location in resulting plume versus site-area map book ("green" book). Compare MIDAS results to HOTSPOT (for R-MIDAS) or EPI-code (for C-MIDAS).
6	Copy scenario files from *cass* to *sibyl* using the script file scenario_transfer.pl (Holt 1998).
7	Log changes in "MIDAS Changes Notebook" in the ESH-17 Meteorology Lab. Include the original paper copy of requested changes from EM&R, or, if no paper copy was received, document changes made.
8	Notify EM&R personnel that changes were completed.

Records resulting from this procedure

Records

The following records generated as a result of this procedure are to be filed and maintained by the Meteorology Project:

- Changes logged in the “MIDAS Changes Notebook” in the Meteorology Laboratory, TA-59, Bldg. 1, Rm. 178.